

Extent TS Force Winds



Tropical Storm HERMINE QuickLook Posted: 00:30 EDT 09/03/2016

NOAA and NOAA Partnership Stations Relative to the Storm 9/7/2016 8 PM 9/6/2016 8 PM Duck, NC Oregon Inlet Marina, NC **USCG Station Hatteras, NC** 9/4/2016 8 AM Beaufort, NC 9/3/2016 8 PM Wrightsville Beach, NC Wilmington, NC 9/3/2016 8 AM Springmaid Pier, SC 9/2/2016 11 PM Charleston, SC Fort Pulaski, GA Fernandina Beach, FL **Active Stations**

Storm Analysis

As of 9/03/2016 00:30 EDT, water levels along coastal regions of North Carolina are rising and range from 1-1.5 feet above tidal predictions. Locations within Pamlico Sound remain at or below tidal predictions. Along the east coast from Florida to South Carolina, water levels are as much as 1.4 feet below normal tide levels.

Winds are increasing ahead of the storm center, from Beaufort, NC northward. Gusts up to 40 kts are being observed at several stations. Winds from Springmaid Pier, SC south have decreased and range from 10 to 20 kts with gusts to 25 kts. Winds have dropped to near zero in the vicinity of Wrightsville Beach, NC, as the storm moves through the region. Barometric pressure has risen at stations south of the storm center and is dropping at all locations within North Carolina.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: CMF

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM HERMINE ADVISORY NUMBER 23 NWS NATIONAL HURRICANE CENTER MIAMI FL AL092016 1100 PM EDT FRI SEP 02 2016

...CENTER OF HERMINE MOVING INTO NORTH CAROLINA...

...DANGEROUS STORM SURGE EXPECTED IN THE HAMPTON ROADS AREA...

SUMMARY OF 1100 PM EDT...0300 UTC...INFORMATION

LOCATION...34.1N 78.4W

ABOUT 30 MI...45 KM WSW OF WILMINGTON NORTH CAROLINA ABOUT 180 MI...290 KM WSW OF CAPE HATTERAS NORTH CAROLINA MAXIMUM SUSTAINED WINDS...50 MPH...85 KM/H PRESENT MOVEMENT...NE OR 55 DEGREES AT 22 MPH...35 KM/H MINIMUM CENTRAL PRESSURE...997 MB...29.44 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Tropical Storm Warning has been discontinued south of Edisto Beach, South Carolina.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

- * Edisto Beach to Sandy Hook
- * Pamlico and Albemarle Sounds
- * Chesapeake Bay from Drum Point southward
- * Tidal Potomac from Cobb Island eastward
- * Delaware Bay

A Tropical Storm Watch is in effect for...

* North of Sandy Hook to west of Watch Hill

Interests elsewhere along the United States northeast coast should monitor the progress of this system. Additional watches or warnings may be require for portions of this area on Saturday.

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area within 36 hours.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

DISCUSSION AND 48-HOUR OUTLOOK

At 1100 PM EDT (0300 UTC), the center of Tropical Storm Hermine was located inland over southern North Carolina near latitude 34.1 North, longitude 78.4 West. Hermine is moving toward the northeast near 22 mph (35 km/h) and this general motion is expected to continue with some decrease in forward speed through Saturday night. A gradual turn toward the north is expected on Sunday. On the forecast track, the center of Hermine should move across eastern North Carolina tonight and emerge over the Atlantic on Saturday.

Maximum sustained winds are near 50 mph (85 km/h) with higher gusts. Strengthening is forecast after the center moves offshore, and Hermine could be near hurricane intensity by late Sunday.

Tropical-storm-force winds extend outward up to 185 miles (295 km) mainly to the south and east of the center. NOAA buoy 41013 recently reported sustained winds of 45 mph (72 km/h) and a wind gust of 51 mph (83 km/h).

The estimated minimum central pressure is 997 mb (29.44 inches).

HAZARDS AFFECTING LAND

WIND: Tropical storm conditions will continue to spread northward within the warning area along the Atlantic coast through Sunday. Tropical storm conditions are possible in the watch area by late Sunday or Sunday night.

STORM SURGE: The combination of a storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. There is a danger of life-threatening inundation during the next 24 hours in the Hampton Roads area. Persons within this area should take all necessary actions to protect life and property from rising water. Promptly follow all instructions, including evacuation orders, from local officials. There is also the possibility of life-threatening inundation during the next 48 hours at most coastal locations between the North Carolina/Virginia border and Bridgeport, Connecticut.

For a depiction of areas at risk, please see the Prototype Storm Surge Watch/Warning graphic, which displays areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at www.hurricanes.gov/graphics at4.shtml?wsurge

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

North Carolina coast...1 to 3 feet Hampton Roads area...3 to 5 feet Elsewhere from the NC/VA border to Bridgeport, CT...2 to 4 feet

RAINFALL: Hermine is expected to produce total rainfall accumulations of 4 to 8 inches from east-central to eastern North Carolina, far southeast Virginia into the coastal sections of the Delmarva peninsula and coastal southern New Jersey through Sunday. These rains may cause life-threatening floods and flash floods. Heavy rains may affect

coastal northern New Jersey and Long Island Sunday night into early Monday. Rainbands well to the south of Hermine may produce additional isolated rainfall totals of 3 to 5 inches over north Florida tonight into early Saturday.

TORNADOES: A tornado or two remains possible overnight across the North Carolina Outer Banks.

NEXT ADVISORY

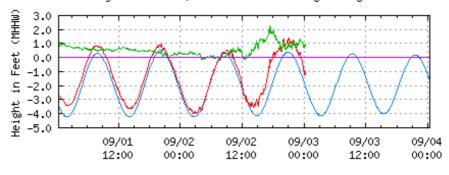
Next intermediate advisory at 200 AM EDT. Next complete advisory at 500 AM EDT.

Forecaster Beven

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Wrightsville Beach - Water Level, Wrightsville Beach - Winds, Wrightsville Beach - Barometric,
Wilmington - Water Level, Wilmington - Barometric, Beaufort - Water Level, Beaufort - Winds, Beaufort Barometric, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, USCG Station Hatteras Barometric, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, Oregon Inlet Marina - Barometric,
Duck - Water Level, Duck - Winds, Duck - Barometric, Springmaid Pier - Water Level, Springmaid Pier - Winds,
Springmaid Pier - Barometric, Charleston - Water Level, Charleston - Winds, Charleston - Barometric, Fort Pulaski Water Level, Fort Pulaski - Winds, Fort Pulaski - Barometric, Fernandina Beach - Water Level, Fernandina Beach Winds, Fernandina Beach - Barometric

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

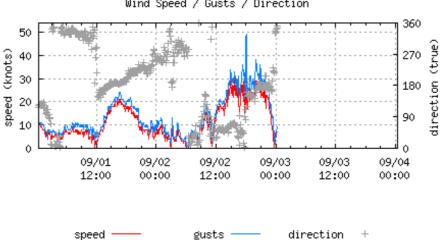


Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: -1.25 ft. Predicted: -2.08 ft. Residual: 0.83 ft. Historical Maximum Water Level: Sep 25 2008, 2.81 ft.

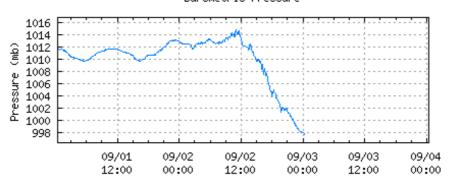
Next High Tide: 09/03/2016 09:22 (EDT), 0.28 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC Wind Speed / Gusts / Direction



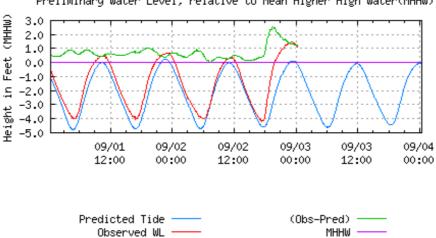
Last Observed Sample: 09/03/2016 00:18 (EDT) Wind Speed: 7 knots Gusts: 9 knots Direction: 350° T

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC Barometric Pressure



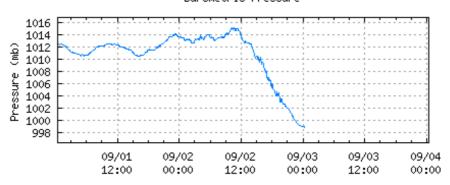
barometric pressure ——
Last Observed Sample: 09/03/2016 00:18 (EDT)
Barometric Pressure: 997.7 mb

NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



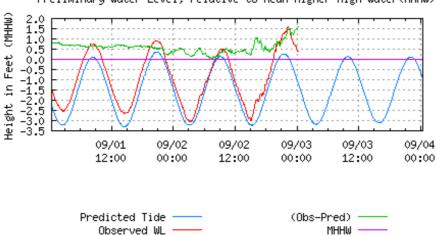
Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: 1.12 ft. Predicted: -0.16 ft. Residual: 1.28 ft. Historical Maximum Water Level: Oct 15 1954, 3.47 ft. Next High Tide: 09/03/2016 11:47 (EDT), -0.07 ft.

NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Barometric Pressure



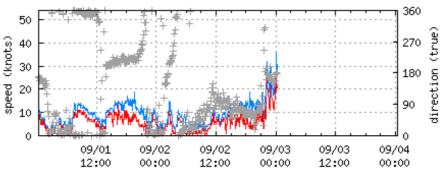
barometric pressure ——
Last Observed Sample: 09/03/2016 00:18 (EDT)
Barometric Pressure: 998.9 mb

NOAA/NOS/CO-OPS <u>8656483 Beaufort</u>, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: 0.35 ft. Predicted: -1.25 ft. Residual: 1.60 ft. Historical Maximum Water Level: Sep 14 2005, 3.01 ft. Next High Tide: 09/03/2016 09:51 (EDT), 0.14 ft.

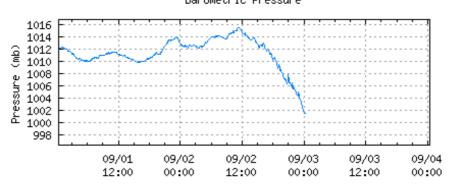
NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 09/03/2016 00:18 (EDT)

Wind Speed: 22 knots Gusts: 32 knots Direction: 171° T

NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Barometric Pressure

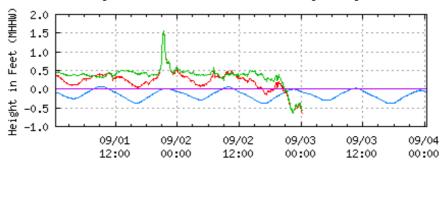


barometric pressure ----

Last Observed Sample: 09/03/2016 00:18 (EDT)

Barometric Pressure: 1001.3 mb

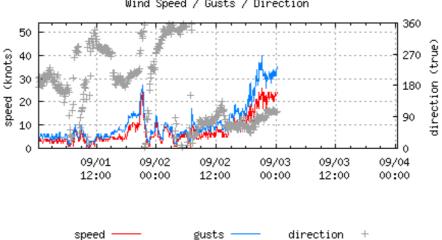
NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatterss</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide — (Obs-Pred) — Observed WL — MHHW —

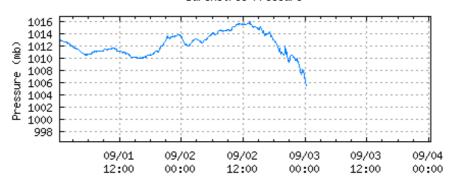
Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: -0.63 ft. Predicted: -0.08 ft. Residual: -0.55 ft. Historical Maximum Water Level: Oct 29 2012, 4.02 ft. Next High Tide: 09/03/2016 10:37 (EDT), 0.03 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC Wind Speed / Gusts / Direction



Last Observed Sample: 09/03/2016 00:18 (EDT) Wind Speed: 25 knots Gusts: 36 knots Direction: 108° T

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatteras</u>, <u>NC</u> Barometric Pressure



barometric pressure ——
Last Observed Sample: 09/03/2016 00:18 (EDT)
Barometric Pressure: 1005.6 mb

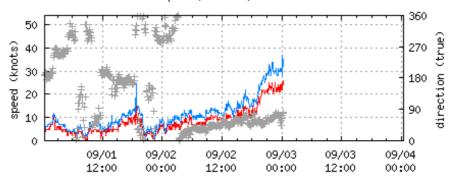
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.0 0.8 0.6 0.4 0.2 0.0 Height in Feet (MHHW) -0.2 -0.4 -0.6 -0.8 -1.0 09/01 09/02 09/02 09/03 09/03 09/04 12:00 00:00 12:00 00:00 12:00 00:00 Predicted Tide (Obs-Pred)

Last Observed Sample: 09/03/2016 00:30 (EDT). Data relative to MHHW Observed: -0.61 ft. Predicted: -0.35 ft. Residual: -0.26 ft. Historical Maximum Water Level: Aug 28 2011, 6.32 ft. Next High Tide: 09/03/2016 09:58 (EDT), 0.08 ft.

MHHW

Observed WL

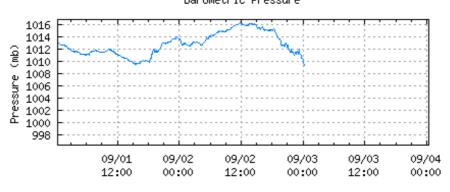
NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 09/03/2016 00:30 (EDT)

Wind Speed: 27 knots Gusts: 35 knots Direction: 77° T

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina</u>, NC Barometric Pressure



barometric pressure ----

Last Observed Sample: 09/03/2016 00:30 (EDT)

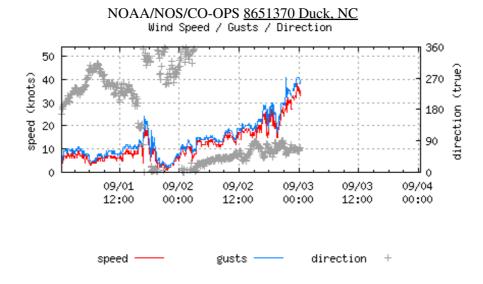
Barometric Pressure: 1008.7 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW) Height in Feet (MHHW) 2.0 1.0 0.0 -1.0 -2.0 -3.0 -4.0 09/01 09/02 09/02 09/03 09/03 09/04 12:00 00:00 12:00 00:00 12:00 00:00 (Obs-Pred)

Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: 0.01 ft. Predicted: -1.76 ft. Residual: 1.77 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft. Next High Tide: 09/03/2016 09:26 (EDT), 0.11 ft.

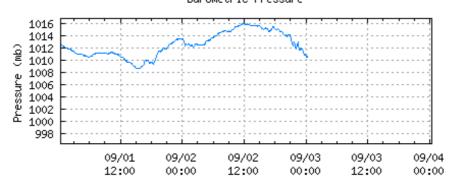
MHHW

Predicted Tide Observed WL



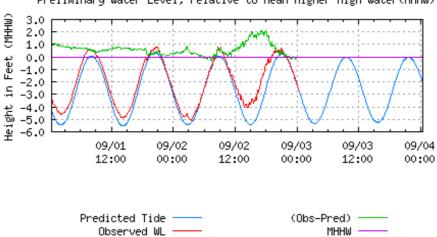
Last Observed Sample: 09/03/2016 00:18 (EDT) Wind Speed: 35 knots Gusts: 39 knots Direction: 69° T

NOAA/NOS/CO-OPS <u>8651370 Duck</u>, NC Barometric Pressure



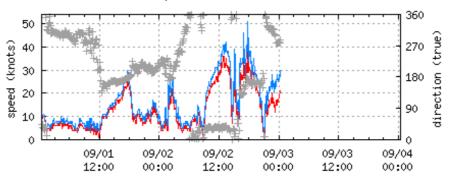
barometric pressure ——
Last Observed Sample: 09/03/2016 00:18 (EDT)
Barometric Pressure: 1010.6 mb

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: -2.67 ft. Predicted: -2.62 ft. Residual: -0.05 ft. Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 09/03/2016 09:32 (EDT), -0.00 ft.

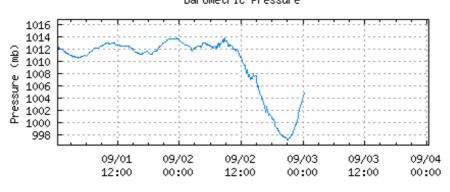
$\begin{array}{c} NOAA/NOS/CO\text{-}OPS \ \underline{8661070 \ Springmaid \ Pier, \ SC} \\ \text{Wind Speed} \ / \ \text{Gusts} \ / \ \overline{\text{Direction}} \end{array}$



speed gusts direction + Last Observed Sample: 09/03/2016 00:18 (EDT)

Wind Speed: 21 knots Gusts: 30 knots Direction: 286° T

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Barometric Pressure

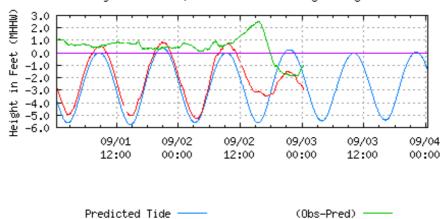


barometric pressure ----

Last Observed Sample: 09/03/2016 00:18 (EDT)

Barometric Pressure: 1004.8 mb

NOAA/NOS/CO-OPS <u>8665530 Charleston, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



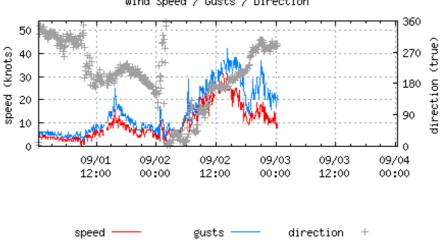
Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: -2.94 ft. Predicted: -1.90 ft. Residual: -1.04 ft.

MHHW

Observed WL

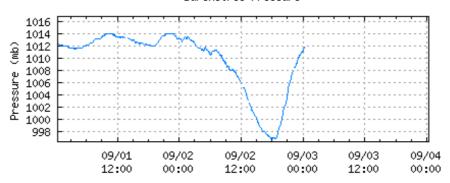
Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 09/03/2016 10:03 (EDT), -0.03 ft.

NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Wind Speed / Gusts / Direction



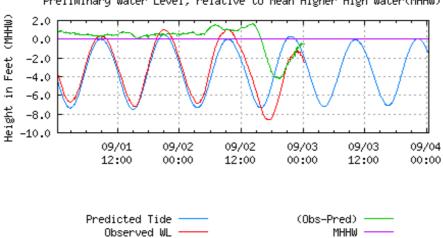
Last Observed Sample: 09/03/2016 00:18 (EDT) Wind Speed: 8 knots Gusts: 21 knots Direction: 289° T

NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Barometric Pressure



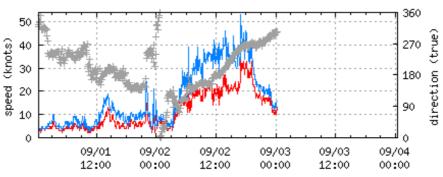
barometric pressure ——
Last Observed Sample: 09/03/2016 00:18 (EDT)
Barometric Pressure: 1011.8 mb

NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u>
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/03/2016 00:18 (EDT). Data relative to MHHW Observed: -2.57 ft. Predicted: -2.15 ft. Residual: -0.42 ft. Historical Maximum Water Level: Oct 15 1947, 3.40 ft. Next High Tide: 09/03/2016 10:08 (EDT), -0.07 ft.

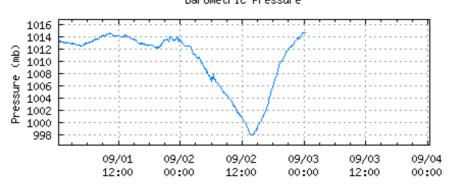
NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 09/03/2016 00:18 (EDT)

Wind Speed: 13 knots Gusts: 17 knots Direction: 308° T

NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Barometric Pressure

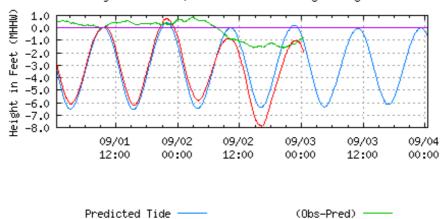


barometric pressure ----

Last Observed Sample: 09/03/2016 00:18 (EDT)

Barometric Pressure: 1014.7 mb

NOAA/NOS/CO-OPS <u>8720030 Fernandina Beach, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



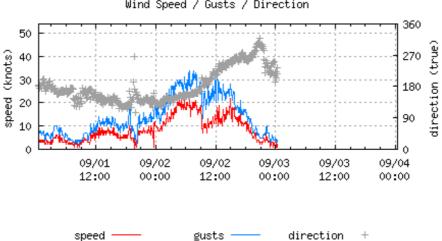
Last Observed Sample: 09/03/2016 00:24 (EDT). Data relative to MHHW Observed: -1.95 ft. Predicted: -1.16 ft. Residual: -0.79 ft.

MHHW

Observed WL

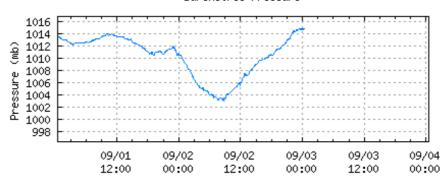
Historical Maximum Water Level: Oct 2 1898, 6.94 ft. Next High Tide: 09/03/2016 10:59 (EDT), -0.04 ft.

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL Wind Speed / Gusts / Direction



Last Observed Sample: 09/03/2016 00:24 (EDT) Wind Speed: 2 knots Gusts: 4 knots Direction: 234° T

$\begin{array}{c} NOAA/NOS/CO\text{-}OPS \ \underline{8720030} \ Fernandina \ Beach, FL \\ \text{Barometric Pressure} \end{array}$



barometric pressure —— Last Observed Sample: 09/03/2016 00:24 (EDT)

Barometric Pressure: 1014.8 mb

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8658163	Wrightsville Beach, NC	09/03/2016 00:18 (EDT)	-1.25 ft	-2.08 ft	0.83 ft	1.40 ft
8658120	Wilmington, NC	09/03/2016 00:18 (EDT)	1.12 ft	-0.16 ft	1.28 ft	1.44 ft
8656483	Beaufort, NC	09/03/2016 00:18 (EDT)	0.35 ft	-1.25 ft	1.60 ft	1.58 ft
8654467	USCG Station Hatteras, NC	09/03/2016 00:18 (EDT)	-0.63 ft	-0.08 ft	-0.55 ft	0.49 ft
8652587	Oregon Inlet Marina, NC	09/03/2016 00:30 (EDT)	-0.61 ft	-0.35 ft	-0.26 ft	0.70 ft
8651370	Duck, NC	09/03/2016 00:18 (EDT)	0.01 ft	-1.76 ft	1.77 ft	1.49 ft
8661070	Springmaid Pier, SC	09/03/2016 00:18 (EDT)	-2.67 ft	-2.62 ft	-0.05 ft	0.76 ft
8665530	Charleston, SC	09/03/2016 00:18 (EDT)	-2.94 ft	-1.90 ft	-1.04 ft	0.76 ft
8670870	Fort Pulaski, GA	09/03/2016 00:18 (EDT)	-2.57 ft	-2.15 ft	-0.42 ft	1.08 ft
8720030	Fernandina Beach, FL	09/03/2016 00:24 (EDT)	-1.95 ft	-1.16 ft	-0.79 ft	-0.85 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce